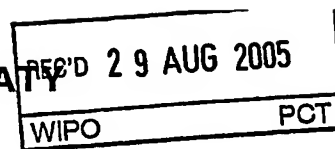




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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 701.436	FOR FURTHER ACTION See Form PCT/PEA/416	
International application No. PCT/EP2004/006276	International filing date (<i>day/month/year</i>) 10.06.2004	Priority date (<i>day/month/year</i>) 10.06.2003
International Patent Classification (IPC) or national classification and IPC A63C5/07, A63C9/00		
Applicant QUAGGIOTTI, Vittorio		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p style="margin-left: 20px;">a. <input type="checkbox"/> sent to the applicant and to the International Bureau a total of 3 sheets, as follows:</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p style="margin-left: 20px;">b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>		
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>		
Date of submission of the demand 03.01.2005	Date of completion of this report 25.08.2005	
Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Brunie, F Telephone No. +49 89 2399-7944 	

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2004/006276

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-8 as originally filed

Claims, Numbers

1-13 received on 03.02.2005 with letter of 24.01.2005

Drawings, Sheets

1/8-8/8 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-13
	No: Claims	
Inventive step (IS)	Yes: Claims	1-13
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-13
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

Reference is made to the following documents:

D1: US 2002/096860 A1 (LOWE MICHAEL R) 25 July 2002 (2002-07-25)

D2: WO 01/91861 A (ATOMIC AUSTRIA GMBH ; HOLZER HELMUT (AT); HUBER
RUPERT (AT); RIEPLER B) 6 December 2001 (2001-12-06)

The document D1 is regarded as being the closest prior art to the subject-matter of claim 1, shows a downhill ski comprising a thrust support comprising a front prolongation the end of which applies elastically a downward thrust action on a point in that portion of the ski between the front jaw of the binding and the section where the tip curvature commences, from which ski the subject-matter of claim 1 differs in that the prolongation has at its front end a connection being acting as a bilateral support and a hinge to inhibit vertical relative movements but to enable longitudinal sliding ones.

The subject-matter of claim 1 is therefore new (Article 33(2) PCT).

The problem to be solved by the present invention may be regarded as providing a better control of the point where the thrust is applied.

This is achieved through a connection action as a bilateral support and a hinge inhibiting vertical movements. Thus flatterring of the prolongation and sideways sliding of the thrust point when the ski is submitted to torsion is avoided.

The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

In D2 (figure 9), a ski with a similar prolongation is disclosed. The prolongation may be able to transmit a downwards force, but this is not apparent from D2. The connection is of a type

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(SEPARATE SHEET)**

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similar as in claim 1. However in D2, the thrust is applied in a longitudinal direction. A combination of D1 with D2 appears not probable, since in D2, the problem of stiffening the front of the ski is already solved, and the two stiffening systems appear not to be associable or even compatible within the disclosed structures.

Claims 2-13 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

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CLAIMS

1. A downhill ski characterised by comprising a thrust support consisting of a superstructure having a base member, connected to the central region of the ski, and a front prolongation (5,11), the end of which exerts elastically a concentrated downward thrust action on a point (6) in that portion of the ski between the front jaw (P) of the binding and the section (4) where the tip curvature commences, the connection of the end of the said front prolongation (5,11) to said ski being of the type acting as a bilateral support and a hinge of transverse-horizontal axis, able to inhibit mutual movements in a vertical direction, but such as to enable mutual rotation about said transverse-horizontal direction and mutual sliding in a longitudinal direction.
2. A ski as claimed in claim 1, characterised in that the thrust support acts on a point substantially at the centre of that portion between the front jaw (P) of the binding and the section (4) where the tip curvature commences.
3. A ski as claimed in claim 1, characterised in that the thrust support acts on a point situated in the rear half of that portion between the front jaw (P) of the binding and the section (4) where the tip curvature commences.
4. A ski as claimed in claim 1, characterised in that the base member is split into two half-members (8,9), namely a rear one (9) for merely raising the heel of the binding, and a front one (8) below the front part of the boot.
5. A ski as claimed in claim 1, characterised in that said prolongation (5) and at least the front portion (8) of said base member form a monolithic entity.

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6. A ski as claimed in claims 4 and 5, characterised in that said front half-member (8) is hinge-connected to said central region (1) at a point (17) to the rear of the front jaw (P).
7. A ski as claimed in claim 1, characterised in that said connection (6) consists of a hinge slotted in a horizontal plane.
8. A ski as claimed in claim 4, characterised in that said prolongation (11) is independent, is connected at its rear to the front portion of said base member by a hinge (12) and is provided with a retro-prolongation (13) which extends from said hinge and acts as a reacting element on the base member by means of a counteracting element (14).
9. A ski as claimed in claim 4, characterised in that such prolongation (11) is independent, is connected at its rear to the front portion of said base member by a hinge (12) and is provided with a retro-prolongation (13) which extends from said hinge and acts as a reacting element on the ski by means of a counteracting element (16).
10. A ski as claimed in claim 4, characterised in that such prolongation (11) is independent, is connected at its rear to the front portion of said base member by a hinge (12) and is provided with a retro-prolongation (13) which extends from said hinge and acts as a reacting element on the base member by means of a first counteracting element (14) and on the ski by means of a second counteracting element (16).
11. A ski as claimed in one or more of claims from 8 to 10 characterised in that at least one counteracting element (14,16) is of adjustable feed.

13. A ski as claimed in claim 12 characterised in that the insert (15) is formed of high-resistance rubber.

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